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CASE OF PERICARDITIS, WITH LARGE EFFUSION, MARKED BY  
CEREBRAL SYMPTOMS. DEATH.

[Read before the Boston Society for Medical Improvement, Dec. 26th, 1865, and communicated for the Boston Medical and Surgical Journal.

By HENRY I. BOWDITCH, M.D.

A YOUNG man, aged 17, living in a healthy place in one of our suburban cities, was the patient. Born of a nervous family, his mother and brother had had chorea. He himself had never been very ill; never had rheumatism; had had a good appetite, and seemed perfectly healthy till actual attack.

Oct. 31, 1865.—I saw him in consultation, the case having been considered a very obscure one.

The history was as follows. Four weeks before, he went to bed apparently in perfect health. He awoke during the night, chilly, but a hot foot-bath and warm drinks, &c., soon restored him, after slight vomiting of the sage tea he had taken for relief.

Next day, not feeling very well, he took salts and senna, and vomited anew; and then appeared pain in the left side of the thorax, with great oppression in breathing. The attending physician, on auscultation, found nothing marked about the physical phenomena of the heart or lungs. No distinct palpitations, no cough, no sputa. The next day there was a sudden attack of extreme orthopnoea, and the pulse was nearly absent for a few moments. Still, no marked physical phenomena on auscultation. On the contrary, by the account of the attending physician, there was nothing manifest, even on a close examination.

On the following day, all the thoracic symptoms suddenly yielded, and never after were prominent. The pulse recovered its character, the orthopnoea disappeared, and the patient was, at my visit three and a half weeks afterwards, able to lie down in any posture without apparent difficulty. A wholly new set of symptoms developed themselves, and were the only marked ones during that interval. Violent headache came on, with great flushing of the face and eyes, great restlessness, delirium, and strabismus, first of one eye and then of the other. For two or three days he was speechless. These cephalic symptoms

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for at least a week were quite severe, and were considered the only ones to be treated. After leeches and ice to the head, and active purges, and finally bromide of potassium, the more violent of them subsided, and when I saw him there was no flush of the face or strabismus; but there was, at times, a little wandering of mind at night, and nausea and great costiveness. He did not fully recover. One day his symptoms seemed to be typhoidal, in his dulness of intellect, some fever, &c., but the next he seemed brighter. His pulse was always rapid and feeble; his nights usually rather sleepless, with jactitation. The day before I saw him he had been quite drowsy. He had considerable nausea and vomiting a day or two previously, owing, however, apparently to medicine administered. The dejections had been normal, but rather infrequent and costive. Nothing remarkable noticed about renal excretion, but no special examination had been made.

I found him of rather small stature, with nothing striking in his aspect. He was lying on his back, quiet and rational, and without the least appearance of severe disease. His breathing was not at all hurried, and he spoke and moved in bed without any dyspnoea. His countenance was sufficiently bright; no strabismus. He answered promptly all questions, and with perfect intelligence, and during my whole examination he did not exhibit the slightest trace of cerebral disease. He did not look as much depressed or emaciated as I had anticipated finding him, after what had been said of his symptoms during the weeks preceding.

My impression, therefore, was, that the cerebral symptoms that had occurred were not dependent on manifest organic changes, such as inflammation of, or effusion into the cavity of the cranium, but rather upon some sympathy with another part of the body.

Remembering the earlier and very transitory symptoms of pain in chest, orthopnoea and pulseless condition, and the fact that at times pericarditis is wholly lost sight of in the cephalic symptoms that occasionally accompany it, I looked to the region of the heart to see if an explanation could be found there.

On percussion, I found dulness over the heart to three times the usual extent, viz., from the intercostal space between second and third rib downwards, and in breadth corresponding. The impulse of the heart was scarcely, if at all felt, and the sounds were very distant. A bellows murmur was heard high on the sternum, and down outside of the left nipple; not heard in the intervening space. The respiration was heard somewhat in both breasts, and in back throughout, without a trace of râles. The abdomen presented nothing of moment.

With these phenomena, it was evident that pericardial effusion existed to a considerable amount. Deeming it probable that that was the primary and chief source of trouble, I suggested the application of ethereal tincture of iodine (3 ss. of iodine to 3 i. of ether) outside, and one fourth of a grain of digitalis three times daily, or *pro re nata*.

With this a general tonic course of diet was indicated—milk and bread, chicken broth, &c. As under the bromide of potassium, given at night, the nervousness had somewhat lessened, I advised its continuance.

The pulse continued to fail, and the digitalis was omitted in forty-eight hours. I did not see him subsequently, but he failed rapidly, and died six days afterwards, with the signs of increasing effusion; no return of cephalic symptoms.

At the autopsy, Dr. ELLIS found the pia mater at the base of the brain infiltrated, at some points, with pus, and the serum was more abundant than usual, and turbid. The brain itself presented nothing remarkable.

The pericardium was enormously distended by at least five pints of a purulent fluid, and large fibrinous masses. When the sternum and ribs were raised, the pericardium was the only object visible, the lungs being wholly obscured by it. There were some patches of recent lymph over several parts of the heart, which otherwise was healthy. The other organs presented nothing remarkable.

The occurrence of nervous symptoms, to such a degree, with pericarditis, is rare. Dr. Austin Flint\* has seen three. Two died undiscovered until after death.

The symptoms accompanying this state are peculiar; maniacal often. The patient may be speechless, as ours was, or he may spit in every direction, as in typho-mania. He at times seems frightened, and almost as if in delirium tremens. He may have convulsions, or coma. It is usual to find no marks of inflammation about the brain. In the present case it was slight, and evidently was not extensive enough to have caused death.

The prognosis in any case is generally not so much from the inevitable mortality of the affection, as from its usual entire latency; so that extensive effusion often takes place without being recognized.

Of course, active leeching and blistering, or iodine over the heart, would be indicated in the early part of the disease, with a mild but sufficient diet, and subsequently stimulants, with wine and quinine, are of immense benefit. But at times paracentesis would really be called for. It is to be regretted that it was not tried in this case, as the enormous effusion that rapidly increased after I saw him, would seem to have indicated its propriety. There could have been no objection to the operation, and scarcely any danger in tapping such a large sac as the pericardium became at last. The operation has been done by Schuh, of Vienna, Dessault, Beau, and others in France. Strictly speaking, there is no more danger in opening the pericardium than in tapping the abdomen, or the pleural, or any other serous cavity. All the usual arguments against it, such as that we might strike the heart, might wound the internal mammary artery, that we

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\* On the Heart, &c.

could not draw off the fibrin, that the advantage would be only temporary, as the fluid would re-accumulate, &c., would become no arguments against the operation, provided we were perfectly sure of our diagnosis of a *large* amount of fluid.

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#### TUMOR OF THE LARYNX REMOVED WITH SUCCESS.

[Read before the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

By SAMUEL CABOT, M.D.

THE patient, J. H. D., æt. 5 years, a healthy, well-developed boy for his age, was observed to have hoarseness, which began about a year since, and gradually became worse, the breathing showing signs of obstruction, without cough at first, but later some cough was occasionally present, which was attributed to bronchitis. About eight or nine months after the first appearance of the hoarseness, he had an attack of what was called pneumonia, after which the hoarseness and difficulty of breathing somewhat diminished, continuing better until recently, when it became rapidly worse, so as to destroy the power of articulation.

Saturday, Jan. 7th, 1865, I was called to the country to see the child, who was said to be near death. I found him breathing with the greatest difficulty, livid, gasping, throwing himself about upon the bed, the head thrown back, &c.; in short, all the appearance of imminent suffocation. On introducing my finger into the throat, the edges of the larynx felt thickened and rounded. The chest was resonant upon percussion throughout. Feeling that the only resource was tracheotomy, I immediately opened the trachea at as great a distance from the larynx as I conveniently could, and introduced a large double tube, with a fenestrum in the outer tube. The relief was immediate and complete. I advised that the boy should be taken to the Massachusetts General Hospital at the earliest practicable moment, that he might be under my immediate care.

He came to Boston and entered the Hospital on the 10th, three days after the operation. He was put in a room well filled with steam, and put upon a nutritious diet, with internal use of iodide of potash, and frequent applications of a strong solution of tannic acid in glycerine to the throat and larynx.

On Jan. 12th I made an examination of the larynx with the laryngoscope, but owing partly to the irritability of the fauces and partly to my own inexperience in the use of that instrument, my examination was far from satisfactory. The only fact learned by it was that the edges of the larynx were less thickened than I had supposed from my previous digital examination. Under the continued use of steam in the air, applications of tannin, chlorate of potash, alum, and nitrate of silver in solution and in the form of powder to the



diseased part, and the internal use of iodide of potash, the patient apparently improved, and on Feb. 7th the steam was discontinued.

On Feb. 20th the patient was etherized, the tubes were removed from the trachea, and a large-sized metallic sound was passed through the larynx past the wound in the trachea, and withdrawn; still it was found that upon withdrawing the inner tube and stopping the orifice of the remaining one, the patient could not breathe through the larynx. He was sent to his home in the country, and the same treatment was ordered to be continued there.

On May 11th re-entered the Hospital, in order to have a different kind of tube substituted for the one he had been wearing. This tube was designed to pass up into the lower larynx, and to fit into another passing down in the direction of the trachea; the part designed to pass up into the larynx was made with a hinge, allowing the upper portion, which was made of two parts, resembling the upper mandibles of a duck's bill, to shut together, so that it could be easily introduced, and then expanded when within the larynx. It was found upon trial, that though it could be easily introduced and secured in place, the instrument projected too far into the larynx, and caused so much irritation that it could not be retained.

Hoping that the obstruction, whatever its nature, might have so far diminished under treatment that the patient could get along without any tube, I decided to allow the opening in the trachea to close and watch the effect.

As the opening in the trachea contracted, the breathing became more and more labored; the child's health began to suffer, he could not sleep, and the breathing evidently could not be carried on through the larynx, so that upon the 14th, three days after the tubes had been left out, I was obliged to re-introduce them, which I did by enlarging the opening upwards, so as to put it at a point somewhat nearer the larynx than it had been previously. After this several attempts were made to substitute the duck-bill tube, the mandibles having been shortened, but though it was borne for several days on one occasion, yet it was found not to answer, and was finally abandoned. Finding that my own attempts at laryngoscopy had failed to give me much light upon the nature of the obstruction, I called in Dr. H. K. Oliver, our accomplished laryngoscopist, who, after a long and patient trial, extending over weeks, including as it did the education of a child of 6 years in the art of showing his larynx, succeeded at length in discovering that nearly the whole larynx was filled up by what appeared to be a smooth, rounded tumor, growing from the whole posterior wall of the larynx, projecting forward, so that its anterior margin could not be seen, with no appearance of any fissure on either side of it, and precluding all hope of applying any wire-loop, or ecraseur, or other instrument for its removal. After consulting with Dr. Oliver, I scarified the tumor deeply with a curved knife, cutting on its convexity, and applied immediately

a saturated solution of nitrate of silver; this was repeated several times, but with no permanent benefit. Having exhausted all other means, I finally determined to lay open the whole larynx, and thus to gain direct access to the tumor. Accordingly, on the 18th of November, the patient having been etherized, the tube was withdrawn from the trachea, the skin and soft parts cut through, from a point about an inch above the upper margin of the larynx to the opening in the trachea. Then a bent, grooved director was carried through the opening in the trachea up and out through the opening above the larynx, being held carefully to correspond to the line of junction between the thyroid cartilages; a knife was pushed up along the groove in the director, dividing all the parts above it, thus splitting the larynx its whole length; the sides were then pulled apart by yulsella, and held thus by aids. But little blood was lost, and on sponging out the blood the tumor was seen, occupying the posterior internal surface of the larynx, covering it completely from side to side, and almost entirely from top to bottom, and projecting forward so as to almost touch the anterior surfaces. The appearance and character of the tumor was quite different from what I had been led to expect from the appearances presented by the laryngoscope. Instead of a smooth, rounded, solid mass, such as I expected to find, and which I had hoped to seize with forceps and to dissect out with a knife, I found a mass resembling half a raspberry, with papillæ more pronounced and distinct; in short, a columnar, epithelial, wart-like growth, very friable, giving no hold to forceps, and breaking with the least touch. This I snipped off with curved scissors, after which I removed two firmer masses from the fossæ, and then having dried the surface, I rubbed it over very thoroughly with solid nitrate of silver. I then secured the thyroid cartilages together with a single stitch, and brought the skin together with sutures down to the margin of the opening in the trachea, into which I again introduced the tubes. The next day, the boy was up and playing with his toys; he said his throat felt sore, but made little complaint of it.

Nov. 23d, five days after the operation, he could bear to have the outer opening of the tube stopped, and could breathe with but little difficulty through his larynx. He was sent home to get the wound healed and the soreness removed, then to return and have the tubes taken out.

His wound soon healed and the soreness disappeared, and his mother, who had been directed to stop the tube frequently in order to accustom him to use his larynx which had been disused for nearly a year, reports that he often goes with a cork in the tube from the time he gets out of bed in the morning until he goes to bed at night, and without the slightest inconvenience.

Soon after this report was made by the mother, the boy took a severe cold, with cough, profuse mucous expectoration, &c.; this attack kept him at home until Jan. 2d, 1866, when he re-entered the

Hospital, and although he had not recovered from the cold, I removed the tube from the trachea. The orifice closed in about a week, his breathing becoming easier day by day, and voice gradually returning, so that he could speak in a loud whisper, could whistle, and blow with a strong and prolonged current. Before he went home, Dr. Oliver examined his larynx with the laryngoscope, and found it apparently free from disease, and with an opening of the natural size.

The microscopic examination of the tumor was made by two gentlemen, experts in microscopy, to one of whom was committed one of the firm masses removed from the fossæ, and was reported by him to consist of glandular and fibrous tissue; to the other, a part of the wart-like growth was given, and he reported that it consisted of epithelial and fibrous tissue.

About a week after this report was read to the Society, I was sent for to see the child, as he was very ill, with cough and difficulty of breathing, supposed to be pneumonia. When I saw him, I found that the pneumonic symptoms had disappeared; he had slight cough and some expectoration, but the breathing was labored, with a tracheal sound, and the passage of air through the trachea was not sufficiently free to support life, though there were no signs of imminent suffocation. Accordingly, I cut down in the old cicatrix and opened the trachea, which appeared much narrowed at this point, and covered with pediculated granulations, some of which were cut off by my knife, and some torn off by the tube on inserting it; they resembled very closely the peculiar growths seen in a case of disease of the larynx following caustic ammonia, and of which the tongue and larynx were shown by Dr. H. K. Oliver on the same evening that my paper was read.

I think that the present obstruction is wholly at the point in the trachea where the tube was so long worn, and is caused partly by cicatricial contraction and partly by the pediculated outgrowths of which I have spoken, and that this condition of things is mostly due to the long presence of the tube; moreover, that if the larynx had been opened at the first and the tumor excised then, the result would have been the perfect success which I had supposed I had reached.

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#### CHOLERA.

QUERIES BY A PRACTICAL MAN (SUGGESTED BY THE LAST NO. OF THE JOURNAL).

[Communicated for the Boston Medical and Surgical Journal.]

If "the disease cannot be communicated from one person to another even under circumstances of the greatest intimacy," how can it be conveyed by the clothing simply? If "the disease travels no faster than men travel," will keeping all men at home put an end

to the disease? If so, is such restraint practicable? "It may come to us by railway" as well as by ship; true, the foot passenger may unconsciously take it along with him;—if he has a "trifling diarrhoea," will excluding him from privies and water-closets, and driving him to street corners or the road-side, leave fewer "germs which may give rise to a deadly epidemic"? This is not the first time the privy-hole has been charged with communicating disease! But suppose cholera is communicated per anum exclusively (Robin says the *stomach* is not disturbed by having cholera evacuations put into it unless overloaded), how does this "afford a good explanation" why "the disorder [disease?] is more active on lines of travel by water than by land"? Is it "the fact"? Are not water-closets more thoroughly washed at sea, as a general rule, than common privies on land? How is it in tropical countries, where they have no privies or water-closets, and resort chiefly to the thoroughfares? Where shall "cholera stools" be emptied, if it is such "great imprudence" to empty them "into common privies, gutters and sewers"? What are "suitable disinfectants," not such as may destroy smells merely, or substitute one odor for another, but such as will with any certainty destroy the "germs"?

If, unconscious of their condition, and consequently unobserved by health-officers, "persons so affected may doubtless travel from one place to another, without serious development of the disease, and leave behind in privies and water-closets germs which give rise to a deadly epidemic," what becomes of general laws however stringent? These are *practical*, not "abstract questions," naturally arising from the positions and language of those who maintain "*that the disease is portable*" but "*it is not contagious*, according to the common understanding of that word,"—*portable*, and "communicated through the evacuations of those infected with it, and in this way only"! Have they no stronger grounds for quarantines in New York than these?

One more query—which is the patient most in danger from, the disease, or the doctor who thinks he must immediately "go to work with dosing and friction, with strong sinapisms over the entire bowels," and a gallon ("cong. i.") of rectified spirit containing seventeen and a half ounces of capsicum, lobelia, &c. &c., "by enema as well as by the stomach"—and a multitude of other similar things too numerous to mention?

A "PRACTICAL" PHYSICIAN.

#### POISONING BY PHARAOH'S SERPENTS.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Observing your excellent article in the last number of the JOURNAL on the injurious effects which may result from the inhalation of poisonous gases set free by the combustion of "sul-

pho-cyanide of mercury," in the form of the new toy, the "eggs of Pharaoh's serpents," I beg leave to give the particulars of a case that came under my observation a short time since in Washington, D. C. The eggs being, as you say, one of the fashionable sensations of the day, are introduced into the drawing rooms and nurseries of many of our citizens, who are in a measure ignorant of their true character, and who may realize the fact only when serious mischief has been done.

A gentleman of my acquaintance, who has been troubled with a slight bronchial affection for several months, ignited one of the "eggs" in a close room, and while watching the singular appearance of the mellone slowing exuding from the apex of the cone, was seized with vertigo and asphyxia, and, losing consciousness, fell to the floor, the flame from the burning "egg" igniting a portion of his clothing. He recovered in a moment, but suffered with an aggravation of his bronchitis for several days, accompanied with severe hemicrania.

I have heard of another case similar to the above, in which a child was partially suffocated by the obnoxious gases.

East Greenwich, R. I., Jan. 22d, 1866.

WM. S. ROWEN,

Act. Assist. Surgeon U.S.N.

### Bibliographical Notices.

*Circular No. 6. War Department, Surgeon-General's Office, Washington, November 1, 1865. Reports of the Extent and Nature of the Materials available for the preparation of a Medical and Surgical History of the Rebellion. Printed for the Surgeon-General's Office by J. B. Lippincott & Co. Philadelphia. 1866. 4to. Pp. 166.*

This report comprises two communications to the Surgeon-General: one from GEORGE A. OTIS, Brevet Lieut.-Col. and Surgeon U. S. Vols., in charge of the division of Surgical Records, Surgeon-General's Office, and Curator of the Army Medical Museum; the other from J. J. WOODWARD, Assistant Surgeon and Brevet Major U. S. A., in charge of the Record and Pension Division, Surgeon-General's Office, and of the Medical Section, Army Medical Museum.

In our present issue we propose to give our readers some idea of the first half of this report.

Dr. Otis, in the introduction to his communication, says that the extent of the materials for a surgical report is "simply enormous." "The returns are of as huge proportions as the armies that have been engaged in active operations for the last four years, and the result has been the accumulation of a mass of facts and observations in military surgery of unprecedented magnitude." He institutes comparison of a portion of these returns with the complete statistics of other armies to indicate the vast numbers dealt with. The French and British wounded in the Crimean war reached a total of 51,962. Par-

tial reports for three years of the rebellion return the wounded as 187,470. "Comparing the numbers of cases of some important injury, as, for example, gun-shot fractures of the femur, it is found that in the French Crimean army there were 459 such injuries, and in the English army 194, while over 5000 such cases have been reported to this office." "If one of the major operations is selected for comparison, as excision of the head of the humerus, the Crimean returns give 16 of these excisions in the British and 38 in the French army, while the registers of this office contain the detailed histories of 575 such operations." The surgical specimens of the Army Medical Museum number 5480, and it is richer, numerically at least, than the medicomilitary museums of France or Great Britain. "The value of these materials has been foreshadowed in referring to their nature and extent. It may be emphatically said that they throw much light on some of the great mooted points in surgery, that they comprise on some subjects, as, for example, on the question of the propriety of excising the head of the femur for injury, fuller data than are now extant in the entire range of surgical literature; and that it may be hoped, without temerity, that they include the elements for the solution of many great surgical problems."

Following these statements is a *résumé* of the various means that have been resorted to, to perfect the army and hospital returns, and to render them available for practical and scientific use, by the aid of artists, colorists, draughtsmen, engravers, photographers, &c. The reports for the first two years of the war and for the greater portion of the third have been consolidated, and "it is estimated that, by judicious condensation, one large quarto volume will include the statistics of the graver injuries, as fractures of the extremities and wounds implicating the joints or great cavities, and of the major surgical operations they have involved, the individual cases, their progress and results, being concisely recorded; while a second quarto volume could comprise numerical tables of the less serious injuries, an historical summary, and a discussion of the lessons derived from the statistical records of the war."

The report then continues in a brief review of the records of special wounds and injuries, of some of their complications, and of the operations which they have rendered necessary.

Under the head of "*Gun-shot Injuries of the Head*," we learn that of 107 cases in which the operation of trephining was performed, 60 died and 47 recovered. In 114 cases in which fragments of bone or of foreign substances were removed without the use of the trephine, 61 proved fatal and 47 resulted in recovery. In 483 cases treated by expectancy, the ratio of recovery was only 20.5 cent. The field operations of trephining, which were lost sight of, and in all probability terminated fatally, modify materially this favorable exhibit. The records corroborate the observation of Mr. Hewett that "the successful issue of a case of trephining for matter between the bone and dura mater is almost unknown to surgeons of our own time." "The museum contains eight examples of that rare and interesting variety of gun-shot fracture of the cranium in which the external table is unbroken, while the vitreous table is fissured and sometimes depressed." Two very striking illustrations of this phenomenon are figured, and the remark is made, "it is believed that this accident results from a

small projectile striking the cranium very obliquely, or possibly, in some cases, from a comparatively slight blow from a body with a large plain surface." Two figures are given of the infrequent instance in which a conoidal ball has split in halves by striking the skull at an acute angle. Hernia or fungus cerebri is mentioned in connection with 18 cases of fracture of the skull, with laceration of the dura mater and brain. Of these only four recovered, and that without operative interference, gradual contraction and cicatrization ensuing. Shaving off the mass or compression was invariably followed by a fatal result. It is observed that in the after-treatment of scalp wounds, spare diet, antiphlogistic measures and perfect rest were not considered as of essential importance, and that in cranial fractures operative interference rather than an expectant plan was adopted. The impression is that a larger measure of success has attended the operation of trephining in the late war than the previous experience of military surgeons would have led us to anticipate. Dr. D. W. Bliss has reported eleven successful cases after the use of the elevator or trephine; and even in those almost hopeless cases in which compression of the brain follows a gun-shot injury of the skull at a late date, instances of recovery are reported.

The chapter which we have thus epitomized is followed by briefer ones on "*Wounds of the Face*," "*of the Neck*," and "*of the Back and Spine*." Of this last class, we learn that in 187 cases of gun-shot fracture of the vertebræ, all but 7 proved fatal, and in only a single instance, where a musket-ball penetrated to the vertebral canal, did the patient recover.

Seventy-three per cent. of penetrating gun-shot *Wounds of the Chest* proved fatal. The management of hæmorrhage presented theoretical rather than practical difficulties. The results of "hermetically sealing" penetrating wounds of the chest, proposed by Dr. Howard, unqualifiedly condemn the practice. Only four cases of gun-shot *Wound of the Heart* came under treatment, and in only one instance did the patient survive twelve hours. In this case a small pistol-shot entered the left ventricle and passed out through the right auricle.

Twenty-six per cent. of penetrating *Wounds of the Peritoneal Cavity* recovered, and it is said that this unexpectedly large proportion includes only cases in which the diagnosis was beyond question.

Under the head of "*Gun-shot Wounds of the Bladder*" is the singular history of a soldier with an encysted musket ball buried in the corpus cavernosum, which he refused to have extracted. Also a case of lithotomy, in which a fragment of shell two inches long, seven eighths wide, and three eighths thick, covered with phosphatic deposit, and weighing 898 grains, was successfully extracted.

*Gun-shot Wounds of the Lower Extremities* are alluded to with considerable detail. The only recorded recoveries after gun-shot fracture of the femur involving the hip-joint, were those in which excision was practised. Under conservative measures, 93 cases of fractures, out of 387 of the upper third, had survived the injury a year or more, and are reported as recovered. Amputation was 8 per cent. more fatal than conservation, and this ratio holds good in all the regions except the upper third. In this chapter it is stated that the degree of difference in the injuries inflicted by round and conoidal balls has been exaggerated. "One curious effect, occasionally produced by the heavy



conoidal ball in striking the femur, has not been very generally noticed. The bone is fissured and comminuted, though less than is common, at the point at which the ball impinges, while at two or three inches above or below this point, according as the point of impact is below or above the middle of the shaft, a nearly transverse fracture of the shaft is produced."

Of 36,508 gun-shot wounds, only 27 belong to the category of *Wounds of Arteries*, and the remark is made that the "dread of primary hæmorrhage on the battle-field is confined to the inexperienced." We all remember the doctor and instrument maker who at the beginning of the war prevailed with several associations and State governments to furnish every soldier with a field tourniquet, of which they were respectively the maker and advocate.

Of *Sabre* wounds only 105, and of *Bayonet* wounds but 143, have been reported for the first three years of the war. Two thirds of these were received in action, the remainder were inflicted by sentinels and patrols. "After the first battle of Bull Run several of the wounded left upon the field were bayoneted by the insurgents. A patient, brought afterwards to Georgetown, received no less than fourteen stabs. A similar instance occurred after the battle of Fair Oaks. Later in the war such atrocities were infrequent." The cloven skull of a soldier is figured, who was captured at Gettysburg, and being unable to keep up with the column, a Confederate lieutenant, in command of the provost guard, cut him down and left him for dead by the roadside. He was brought in by a scouting party, and lived for six weeks, giving the above account to his surgeon. The cut in the skull was six inches long. An interesting case is also figured where a sergeant's sword, penetrating the nostril of a man attacking him, transfixed the sphenoid bone, leaving no external evidence of the injury, except a slight cut in the ala of the nostril. The man died thirty-one hours after the occurrence.

The statements with regard to *secondary hæmorrhage* are very interesting, and conclude with the following paragraph. "In reviewing the 650 cases of secondary hæmorrhage, it appears that, during the earlier part of the war, there were many surgeons who were not sufficiently impressed by the precepts of Bell and Guthrie, and who frequently treated hæmorrhage from gun-shot wounds by tying the main trunk at a distance from the wound, even when the bleeding occurred at a comparatively early period. Later in the war, however, it was the universal practice to endeavor to secure both ends of the bleeding vessel at the seat of injury, and some brilliant examples are recorded in which this was accomplished in wounds of the posterior tibial or popliteal, where limbs had become infiltrated and swollen, and the difficulties of the operation were immense."

The subject of *Pyæmia*, which closes this portion of the report, is disposed of in a few lines. The brevity with which it is spoken of leads us to fear that this great source of mortality has not yet been relieved of its obscurities or shorn of any of its dangers. The same observation applies to the remarks on tetanus, though the records furnish abundant examples of both these classes of diseases.

The second division of Dr. Otis's Report is devoted to the subject of *Surgical Operations*.

It appears that the histories of 13,397 amputations for gun-shot in-



jury have been recorded, and the final results ascertained in 9,705 cases. The law which renders amputation more and more dangerous as it approaches nearer and nearer the trunk, finds no exception even when tested on so large a scale. It may be interesting to quote the percentage of mortality attending amputation in the different regions.

Fingers and hand	- - - - 1.60	Partial amputation of foot	- - - - 9.24
Wrist	- - - - 5.55	Ankle-joint	- - - - 13.43
Forearm	- - - - 16.52	Leg	- - - - 26.02
Arm	- - - - 21.24	Knee-joint	- - - - 55.17
Shoulder-joint	- - - - 39.24	Thigh	- - - - 64.43
Toes	- - - - .75	Hip-joint	- - - - 85.71

The number of cases of amputation at the shoulder-joint reported is less than the number of cases of excisions of the head of the humerus. Of the former there were 458, of the latter 575, and the mortality of the amputations was 6.7 per cent. greater than that of the excisions.

But 9 cases of Pirogoff's amputation have been reported. The operation is said to have found but little favor, and it is stated that "Baron von Horrouitz, Surgeon-in-chief of the Russian Marine, in his recent visit to this office, mentioned that Pirogoff himself had abandoned it, finding the segment of the os calcis likely to become necrosed."

Amputations at the knee-joint are proved to have been less fatal than amputations in the lower part of the thigh, and Hudson and other manufacturers of artificial limbs "distinctly declare, that the stumps give a base of support far better than any possibly to be gained in thigh-stumps."

Nine primary and fourteen secondary amputations at the hip-joint have been reported. Two of the former and two of the latter recovered.

Under the head of *Excisions* we learn that 26 cases out of 35 partial excisions of the wrist-joint recovered. Five and six inches of the diaphysis have frequently been removed with the head of the humerus, and in one instance where the head and upper third of the humerus had been excised, the remainder of the bone became necrosed and was removed, "together with the articular ends of the radius and ulna, and yet a limb was preserved which, with the aid of an ingenious apparatus, is very useful."

At the ankle-joint formal excisions have rarely proved successful, and operative procedures, it appears, should be limited to the judicious use of the gouge and bone forceps.

The knee-joint has been eleven times excised, with but two recoveries. The head of the femur, which, up to the time of the late war, had been eleven times excised with but one success, was removed 32 times with 4 recoveries.

The materials exist for arriving at definite conclusions as to the propriety of excision in the continuity of long bones. They are not yet analyzed, but so far as examined their evidence is unfavorable.

The ligature of the larger arteries has been performed 403 times. We note the following statistical data:—

Common carotid	37 died; 12 recovered.	Common iliac	3 died; 0 recovered.
External " 2 "	0 "	Internal " 2 "	0 "
Subclavian 28 "	7 "	External " 14 "	2 "
Axillary 21 "	3 "	Femoral 83 "	25 "
Brachial 53 "	11 "		

To perform all the vast amount of labor, of which these data are the

evidence, a chapter on the *Medical Staff and the Materia Chirurgica* informs us that there were required "a surgeon-general, one assistant surgeon-general, a medical inspector-general, 16 medical inspectors, 170 surgeons and assistant surgeons of the regular army, 362 volunteer staff surgeons and assistant surgeons, 3000 regimental surgeons and assistant surgeons of volunteers, 2500 acting assistant surgeons, or physicians serving under contract, and 6 medical storekeepers"; or a total of 6,057 medical officers. How faithfully their duties were performed is shown by the fact that during the war thirty-six medical officers were either killed or died from wounds received in battle.

The facilities in the way of stretchers, hand-litters, cacolets, horse-litters, ambulances, hospital railway cars, hospital transports, hospital knapsacks, medicine paniers, field companions, medicine wagons, &c., are described, and the various articles figured which experience has proved to be the best adapted for their purpose.

The surgical portion of the Report concludes with some observations on *Anæsthetics*, from which we learn that seven deaths from chloroform have occurred, and that sulphuric ether was used in 30 per cent. of the operations in which anæsthesia was employed.

The subjects of *Erysipelas*, *Gangrene* and *Missiles* are treated of in a few brief lines.

Having furnished this too concise *résumé* of its contents, we can only remark that the perusal of this Report has afforded us great satisfaction and pleasure. It does not admit of criticism. It is so simply a memorandum of the riches of the Surgeon-General's office that no criticism is at present proper as to the method in which they are to be made useful to science and mankind. We are given an idea of what we may expect, and that in a manner which leaves us no reason to fear that the final accomplishment of the task by those who are entrusted with the work will fail in the realization. This comparatively brief document is highly creditable to all who have been concerned in the arrangement and preparation of the materials of which it is made. The pains, the system, the patience and the skill which deal with the statistics of disease and injury on a scale of such magnitude, must be unwearied. It is fortunate that men of such enlightened and scientific taste have been placed at the head of the medical department of our army. We trust, however, that the illustrations, of which there are 96, are not, in all respects, specimens of the best work which our engravers upon wood can supply. While some of them are very excellent, others, like those numbered 25, 28, 45, 61, 71, do no credit to the country. The zeal with which Dr. Otis enters into the work, and his familiarity with military and general surgery, are apparent on every page.

It is well to remember that Dr. Otis entered the service from Massachusetts as Surgeon of the 27th Mass. Regiment. Surgeon-General Barnes should receive the congratulations of all at finding himself surrounded by the elements necessary for a work on Military Surgery which can have no equal in the world, and compared with which the works of Legouest, Chenu, and the Blue Book of the English Government will be as Colburn's First Lessons to Pierce's Trigonometry.

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 THE BOSTON MEDICAL AND SURGICAL JOURNAL.
 

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 BOSTON: THURSDAY, FEBRUARY 8, 1866.
 

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## REPORT OF THE SURGEON-GENERAL OF MASSACHUSETTS.

We have too long omitted to notice the Annual Report of the Surgeon-General, which is none the less interesting and valuable that it has not to deal, like its predecessors, with the onerous and melancholy duties with which a state of actual war overburdened the bureau of which he is the honored and efficient head. To a large portion of the community it probably seems that this department of our State administration must naturally cease to be of any importance with the cessation of warfare and the return of our regiments from the field. All such persons, on reading the document before us, would be convinced that the office is no more a sinecure now than it has been at any time during the past four years; and any such reader could not fail to be impressed with the great value of the services rendered by the head of this department, and the thoroughness and entire devotion with which they have been performed.

The policy inaugurated by the late honored Executive of the State was not limited in its operation to the exigencies of active war, but provided for the care and welfare of the soldier on his return. These latter duties have added to rather than diminished the labors of the Surgeon-General's office, so that at the present time it is the scene of as busy activity as ever. The humane foresight on the part of the Executive which provided that the fullest information should be collected and put on record in this department, of every man from Massachusetts who had entered the service of his country, while it has been of unspeakable comfort and value to friends at home, has required unceasing activity of the clerical force belonging to it, and has engaged to its fullest capacity the unfailing interest of its head. The importance of this work in relieving the anxiety of relatives, in pointing out channels of communication with distant sufferers in government hospitals, in guiding the melancholy search of the bereaved for the priceless relics of those who had laid down their lives in their country's cause, and in a thousand other ways imparting information and giving counsel which it would have been next to impossible otherwise for the inquirers to obtain, cannot be overestimated.

In giving the history of his office during the past year, the Surgeon-General, as usual, does not fail to recognize the faithful services of all on the surgical staff of the State who have merited acknowledgment. Thus he gives in full the list of those surgeons appointed from Massachusetts who have received a brevet promotion from the United States Government. This honored roll we cannot refrain from copying in full, as a proof of a due appreciation of their services by the National Government, and as an evidence that the war through which we have passed has done something towards raising the medical officers of the army to something like their just position among military men. The list is as follows:—

*Brevet Brigadier General, U.S.A.*  
 Surgeon Charles H. Crane, U.S.A.  
*Brevet Major, U.S.A.*  
 Assistant Surgeon Warren Webster, U.S.A.  
*Brevet Colonel, U.S. Vols.*  
 Surgeon S. A. Holman, U.S. Vols.  
*Brevet Lieutenant-Colonels, U.S. Vols.*  
 Surgeon David P. Smith.  
 " Ira Russell.  
 " J. Theodore Heard.  
 " F. S. Ainsworth.  
 " John W. Foye.  
 " C. N. Chamberlain.

Surgeon P. A. O'Connell,  
 " A. M. Wilder.  
 " Frank Meacham.  
 " Lincoln R. Stone.  
 " O. M. Humphrey.  
 " Joel Seaverns.  
 " George Derby.  
 " George A. Otis.  
*Brevet Major, U.S. Vols.*  
 Assistant Surgeon J. W. Merriam.  
*Brevet Captains, U.S. Vols.*  
 Assistant Surgeon D. B. Hannan.  
 " " J. W. Hayward.

To this list we must add the name of Surgeon Bowman B. Breed, U.S. Vols., breveted Lt.-Colonel, which was accidentally omitted in the Surgeon-General's Report.

In speaking of the State Militia system, we are glad to learn from the Surgeon-General that all the medical officers of this organization are hereafter to be subjected to a thorough examination before being commissioned, and furthermore that the rules and orders of the War Department for the Medical Department of the United States Army will be rigidly insisted on for the volunteer force of this State. These are excellent provisions, and will prevent the possibility of the responsible offices to which they relate being occupied on any sudden emergency by men whose only claim to hold them rests on personal considerations.

Other matters of great interest in this report which we can only cursorily allude to are, the operations of the State Military Agency at Washington, which has in charge all the personal interests of the soldiers in their relations to the General Government, the systematic and successful efforts made by the Adjutant-General and the Surgeon-General to provide employment for disabled officers and men on their return to civil life, and the prospective plan for an asylum for those unfitted for an active life. They add much to the interest of the document, and should be treasured as matters of valuable State history. A few facts here stated are of special interest. Thus, we learn that the number of Massachusetts soldiers who have died from disease, exposure and starvation in Southern rebel prisons, as reported at the Surgeon-General's office, is eighteen hundred and forty.

Since December, 1864, there have been received at his office one thousand special applications for information with regard to missing Massachusetts soldiers. The fate of six hundred and eighty-five has been ascertained, thus affording the necessary evidence for successful prosecutions of claims against the General Government.

Several interesting documents are appended to the Surgeon-General's Report, the last of which is a detailed list of Massachusetts soldiers who have died in rebel prisons, giving the rank, company, regiment, place and date of death, and number of grave in each instance, so far as was possible; an honored roll of martyrs, to be treasured so long as the record of the fiery ordeal of the last four years shall endure.

The whole report before us, like all its predecessors, is honorable in the highest degree to the officer from whom it emanates, and abundantly demonstrative of his fitness for the office which he holds and his fidelity to his trust.

*The late Dr. Elisha Huntington, of Lowell.*—At a meeting of the Middlesex North District Medical Society, held on the 31st ult., the following resolutions were reported and adopted :

*Resolved*, That in the death of Doctor Elisha Huntington we deeply sympathize with all classes of the community in the loss of a public man, whose universal and long lived popularity was the reward of sterling qualities of mind and heart, and whose numerous offices of high honor and trust were full of earnest and faithful endeavor and borne with the modesty of true merit.

*Resolved*, That as President of the Mass. Medical Society, and as President of this District Society, he brought to the discharge of their duties, the same devotion to duty and the same incorruptible integrity, impartiality and affability which endeared him to all.

*Resolved*, We especially reverence his memory as a Physician whose great experience, careful observation of disease, sound judgment and cautious habits of reasoning were ever at the service of all who desired his counsel ; whose active sympathy with the sick knew no distinction between rich and poor ; whose ambition for professional success never betrayed him into dishonorable practices ; and whose desire for self-improvement, which made him an accomplished man in his profession, also made him a zealous supporter of everything conducive to its honor and welfare.

*Resolved*, That while we offer our heartfelt sympathy to his afflicted family which has been deprived of so beloved a member, we feel assured that the memory of a life so faithful to all its duties will soften the pang which such a bereavement must bring.

*Resolved*, That the Secretary be directed to forward a copy of these resolutions to the family of the deceased, and offer them for publication in the *Boston Medical and Surgical Journal*.

JOHN O. GREEN,	}	<i>Committee.</i>
JOHN C. BARTLETT,		
CHARLES A. SAVORY,		

Attest, GEORGE H. WHITMORE, *Secretary.*

*In memory of the late Dr. Timothy Childs.*—The following resolutions were read before the Berkshire Medical Society at the January meeting :

*Resolved*, That the members of the Berkshire Medical Society have heard with profound regret and sincere sorrow, of the mysterious death of Prof. Timothy Childs.

*Resolved*, That we desire to express our sorrow at the unexpected loss of one of our number, who was known among us as a warm personal friend, an able, judicious and honest counsellor, distinguished for his skill and attainments, an eminent teacher in the profession, and greatly beloved by all who knew him.

*Resolved*, That the members of this Society feel this bereavement the more deeply, not merely because it was sudden and unexpected, but because the deceased was a son who had received an early and careful religious education and professional training from an eminent father (now in the evening of life), whose extensive liberality, christian virtues and unflinching devotion to the duties of his calling, have long since placed him at the head of his profession, and enshrined his memory in the hearts of all who know him.

*Resolved*, That we tender to Dr. Henry H. Childs and his deeply afflicted family our sincere and affectionate sympathies.

*Resolved*, That these resolutions be entered on our minutes, and that a copy of them be transmitted to the several papers of the County; to the *Boston Medical and Surgical Journal*; and to the afflicted father of the deceased.

HENRY S. SABIN,  
OLIVER E. BREWSTER,  
J. LELAND MILLER.

WILLIAM WARREN GREEN, *Secretary*.

*The late Dr. H. F. Stevens, of Vermont.*—Dr. Stevens, whose recent decease has been already announced in this Journal, was one of the leading members of the Medical Profession in his native State. He had at different times been President of the State and County Medical Societies with which he was associated, and as a member of the General Assembly in 1860 and 1861, and as Senator in 1862 and 1863, he showed himself a able and industrious legislator for the highest interests of his constituents, being especially known as an earnest friend of the interests of education. He had a large share in securing the adoption by his State legislature of a bill for the publication of the State Registration reports, to the compilation of which he gave careful and unremitting attention. He died at the early age of forty, not forty-eight as previously announced.

At an informal meeting of the Physicians of Franklin County, Vt., held at St. Albans, on the 17th of January, 1866, upon the occasion of his decease, on motion Dr. J. L. Chandler was called to the chair, and Dr. A. M. Brown, of Sheldon, was appointed Secretary.

On motion a committee of three, consisting of Dr. G. M. Hall, of Swanton, Dr. John Branch, of St. Albans, and Dr. A. M. Brown, of Sheldon, were appointed to adopt and present resolutions for the consideration of the meeting.

The committee submitted the following preamble and resolutions, which were adopted.

WHEREAS it has pleased Almighty God to remove by death Dr. Hiram F. Stevens, of St. Albans, in the prime of life, and in the height of professional usefulness, therefore,

*Resolved*, That we bow with deep humility and contrition of heart to this afflicting dispensation of Divine Providence; that he who ruleth all things that come to pass, doth not willingly afflict the sons of men, but in his beneficent wisdom doeth all things well.

*Resolved*, That in the death of Dr. Stevens the medical profession in this County has sustained an irretrievable loss in the person of an intelligent counsellor and zealous worker in the field of medical science, and a firm and abiding friend; and that the community in which he resided has lost one of its most useful members—a willing contributor to the advancement of public prosperity, and a real and ready public officer.

*Resolved*, That while we tender our heartfelt sympathies to his afflicted family, we humbly pray that He who tempers the winds to the shorn lamb will shield and guide them in this the hour of their deepest affliction.

*Resolved*, That a copy of these resolutions be furnished for publication to the newspapers of the county, and to the *Boston Medical and Surgical Journal*—also a copy to the family of the deceased.

Attest, A. M. BROWN, *Secretary*.

*Correction.*—Messrs. Editors,—In the report that was given in the last number of the JOURNAL of two hydrocephalic skulls, I am sorry to say that there was a great mistake in regard to the measurements of Dr. Jeffries's specimen. Instead of 27 inches and 19 $\frac{3}{4}$  inches, I should have said 24 $\frac{1}{2}$  and 17 $\frac{1}{2}$  inches.

It has occurred to me that a measurement of the internal capacity of these skulls would give a better idea of their size than the external measurements; and I have therefore measured them according to Dr. Morton's plan (*Crania Americana*), rice, however, being used instead of white pepper. Of 52 Caucasian skulls, Dr. M. found the greatest, the smallest and the mean internal capacity to be 109, 75 and 87 cubic inches. The internal capacity of Dr. Jeffries's specimen is 188, and of Mr. Blaisdell's specimen 257 cubic inches. J. B. S.

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*Silver Wedding of the Surgeon-General.*—The friends of Dr. S. W. Thayer, Surgeon-General of Vermont, took occasion to commemorate the occurrence of the twenty-fifth anniversary of his wedding on the 6th ult., by presenting him and his lady with a table service of silver plate of over sixty pieces. In addition, other friends presented a number of other valuable articles of silver, and the Surgeon-General also received a gold watch of American manufacture, costing \$250, enclosed in a rich and heavy hunting case. These gifts were accompanied by a most cordial letter, signed by a large number of his friends, expressing the grateful sense of the donors of his faithful and efficient labors in behalf of the soldiers of the State during the late rebellion.

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WE would call the attention of our readers to the circular of the Faculty of the Medical School of Harvard University, printed in this week's Journal, asking for information concerning all those who have at any time been connected with that School, who have served in the Army or Navy of the United States during the late rebellion. This movement has our most cordial sympathy, and it cannot fail of meeting with the fullest cooperation from the profession at large.

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*Disappearance of the Cholera from Paris.*—The *Union Médicale* of the 16th ult., states that for some days previously no new case of cholera had occurred in Paris, either in the city proper or in the hospitals.

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*Epizootic in Indiana.*—A correspondent of the *Cincinnati Lancet and Observer*, writing from Indianapolis, October 27th, 1865, says:—"The summer and fall of 1865 will long be remembered by both physicians and the people. A wide-spread epidemic of malarial poisoning has visited almost every part of our State, and to such an extent in some parts that sheep, hogs and poultry have seemed to die from it. One lady assures me that her chickens, being quite tame, would come to the kitchen in the morning and droop round the stove, and in the afternoon she would find them hiding in the cool, long grass, or among the bushes, and that they died with burning fever; and this calls to mind the subject of cholera. Is this a sign of its coming?"

*Treatment of Cholera.*—Dr. George E. Walton, in a letter from Paris, published in the *Cincinnati Journal of Medicine*, in speaking of Dr. Barth's lectures on cholera says :—

"He gave no particularly new ideas on the treatment. However, I here give you a prescription which has been used with much success in the hospitals. It is by Dr. Lisle, of Marseilles :—Sulphate copper, 75 grains ; distilled water, 1500 grains. Make a solution. Of above solution, 22½ grains ; laudanum, 10 drops ; sweetened water, 1800 grains. Mix. Give every hour or two."

*The English Cattle Plague.*—Despatches from our Consul at Liverpool, dated Jan. 20, 1866, state that the cattle scourge is rather on the increase. He says that during the week previous to date, 9243 cases are reported to the authorities. Thus far upwards of 70,000 cattle have either died of the plague or been killed after taking it. This in reality forms but a small proportion of the actual loss, for hundreds of cases were never reported, and thousands are slaughtered prematurely and hurried to market before the plague attacks them. Vaccination was being tried as a preventive.

THE Galveston Medical College commenced its first course of lectures on the 4th ult. Dr. John H. Webb is Dean. There are nine professors.

The course of lectures in the Savannah Medical College was resumed on the 17th of November last.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 3d, 1866.

##### DEATHS.

	Males.	Females.	Total.
Deaths during the week	36	34	70
Ave. mortality of corresponding weeks for ten years, 1856—1866	39.4	37.3	76.7
Average corrected to increased population	00	00	83.55
Death of persons above 90		1	1

ERRATUM.—In our last issue, page 17, 12th line from top, for "*capsici baccati tr.*," read *capsici baccati pulv.*

PAMPHLETS RECEIVED.—Introductory Address at the Miami Medical College, Cincinnati Nov. 1, 1865, by George Mendenhall, M.D., Professor of Obstetrics.—Annual Report of the Resident Physician of the Kings County (N. Y.) Hospital.—Alcoholic Medication. By R. T. Trall, M.D., New York.—The Eastern, or Turkish Bath, &c. By Erasmus Wilson, F.R.S. With Notes and Appendix by M. L. Holbrook, M.D.—Inoculation in Pennsylvania. By J. M. Toner, of Washington, D. C.

MARRIED.—In this city, 3d inst., Ferdinand H. Gross, M.D., of Pittsburg, Penn., to Miss Henrietta Daggett Williams, of this city.

DEATHS IN BOSTON for the week ending Saturday noon, February 3d, 70. Males, 36—Females 34. Accident, 1—apoplexy, 1—disease of the bowels, 1—congestion of the brain, 2—disease of the brain, 3—bronchitis, 3—burns, 2—cancer, 3—consumption, 11—debility, 1—dropsy, 1—dropsy of the brain, 3—ecthyma, 1—epilepsy, 2—scarlet fever, 2—typhoid fever, 1—disease of the heart, 4—infantile disease, 2—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 9—marasmus, 1—old age, 1—paralysis, 1—disease of the prostate, 1—puerperal disease, 1—rheumatism, 1—smallpox, 2—disease of the spine, 1—disease of the stomach, 1—tumor, 1—unknown, 3—whooping cough, 1.

Under 5 years of age, 22—between 5 and 20 years, 7—between 20 and 40 years, 15—between 40 and 60 years, 10—above 60 years, 16. Born in the United States, 60—Ireland, 18—other places, 2.